

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	How to use this document
4.1	General
4.2	Combined use with other description standards
4.3	Mandatory or optional observations
4.4	Accuracy and units
4.5	Encoding
5	Description objectives and methods
5.1	General
5.2	Investigation objectives
5.3	Quality assurance and quality control
5.4	Description structure
6	Description of general references and general information
6.1	General
6.2	Site/profile numbers
6.3	Location
6.4	Geographical coordinates
6.5	Date and time of observations
6.6	Author and organization
7	Profile environment
7.1	General
7.2	Previous precipitation
7.3	Land use at plot level (checked by detailed field survey)
7.4	Type of cultivation or vegetation or human utilization (at the plot level)
7.5	Landform of the site
7.6	Slope length
7.7	Slope value (gradient)
7.8	Slope orientation (aspect)
7.9	Nature of natural and anthropogenic soils and materials
7.9.1	Natural material
7.9.2	Anthropogenic material
7.10	Presence and depth to water table
7.10.1	General
7.10.2	Present depth to water table
7.10.3	Minimum depth to water table
7.10.4	Maximum depth to water table
7.10.5	Nature of the water
8	Surface appearance
8.1	General
8.2	Description of the surface material

- 8.3 Percentage of land surface occupied by rock outcrops or surface exposures of “non-natural” material
 - 8.4 Evidence of erosion
 - 9 Soil profile description
 - 9.1 General
 - 9.2 Soil descriptions made or changed after the fieldwork
 - 9.3 Soil layer or horizon description method
 - 9.4 Horizon or layer number
 - 9.5 Horizon or layer depth
 - 9.6 Nature of lower horizon boundary
 - 9.7 Estimation of moisture status
 - 9.8 Colour of the horizon or layer matrix
 - 9.8.1 Colour description method
 - 9.8.2 Colour description
 - 9.9 Mottles
 - 9.9.1 General
 - 9.9.2 Mottle abundance
 - 9.9.3 Mottle colour
 - 9.10 Estimated organic matter content
 - 9.11 Texture
 - 9.11.1 Classification system used
 - 9.11.2 Field determination/ estimation of particle sizes
 - 9.11.3 Field determination/estimation of the coarseness of a sandy soil
 - 9.11.4 Sampling for texture analyses
 - 9.11.5 Description of texture diagram
 - 9.12 Coarse elements
 - 9.12.1 General
 - 9.12.2 Coarse element abundance (in % volume fraction)
 - 9.12.3 Maximum size of the most frequently observed coarse elements
 - 9.12.4 Nature of the coarse element(s)
 - 9.12.5 Non-natural or unknown coarse elements
 - 9.13 Carbonates and effervescence
 - 9.13.1 Intensity of effervescence
 - 9.13.2 Location of effervescence
 - 9.14 Main categories of soil structure
 - 9.15 Compactness
 - 9.16 Total estimated porosity
 - 9.17 Roots
 - 9.17.1 Root abundance
 - 9.17.2 Size (diameter) of most frequently observed roots
 - 9.18 Density of worm channels
 - 9.19 Odour
 - 9.20 Field detection of mineral oil in soil samples (oil-water reaction pan)
 - 9.20.1 General
 - 9.20.2 Oil floating on water
 - 9.20.3 Other oil observations
 - 10 General designation
 - 10.1 General
 - 10.2 Type of soil profile classification used
 - 10.3 Soil type with reference to the soil classification system used
 - 10.4 Type of horizon designation used
 - 10.5 Sequence of horizons
 - 11 Reporting
 - 11.1 General
 - 11.2 Presentation of field soil descriptions
 - 11.3 Profile diagram
 - 11.4 Documented information
- Annex A (informative) Landform
- Annex B (informative) Charts for estimating proportions of mottles, coarse elements, etc.

Annex C (informative) Soil horizon designation — Example of the FAO System[30]

- C.1 General**
- C.2 Master horizons and layers**
- C.3 Transitional horizons**
- C.4 Subordinate characteristics within master horizons and layers**

Annex D (informative) Examples of texture diagrams

Annex E (informative) Determination of soil texture in the field

- E.1 Definition**
- E.2 Application**
- E.3 Procedure**
 - E.3.1 General**
 - E.3.2 Fine soil material**
 - E.3.3 Characteristics and properties of particle fractions**
 - E.3.4 Notes for the determination of texture class**
 - E.3.5 Coarse elements**
- E.4 Determination of the texture class of soil**

Annex F (informative) Some types of soil structure

Annex G (informative) List of common elements found in soil and on the soil surface

Annex H (informative) Soil description observations to record for specific types of soil investigations

Annex I (informative) Example field layer description method

Page count: 50